

### **REMARKS**

Favorable reconsideration and allowance of this application are requested.

Claims 25-32 and 34-36 as presented with the applicants' Amendment and Response to Species Election Requirement dated August 31, 2009 remain pending herein for consideration. As will become evident from the following discussion, all such pending claims are patentably distinguishable over the applied publications of record.

#### **1. Response to 35 USC §102(e) Rejection**

Claims 25-31 and 35-36 attracted a rejection under 35 USC §102(e) as being anticipated by Vanmaele et al (USP 7507785). Applicants suggest however that Vanmaele et al is unavailable as "prior art" against the claims pending herein.

The subject application is of course the US national phase entry of PCT/EP2005/003117 filed on March 23, 2005 which claims priority to the filing date of March 25, 2004 attributable to priority application EP 04007201.9.<sup>1</sup> As the Examiner will observe, the structure of the p-aminobenzoic acid of the formula (V-E) is disclosed on page 21, second formula, of the priority EP '201 application. Glycidol as the preferred AB<sub>2</sub> building block is disclosed on page 5, second paragraph of the priority EP '201 application.

The earliest effective filing date for the purpose of 35 U.S.C. 102(e) of the Vanmaele et al patent is arguably only August 16, 2004 (i.e., the filing date of US Provisional Application SN 60/601,886), which date is of course after the priority date of the subject application. Thus, Vanmaele et al is unavailable as "prior art" against the claims pending in the subject application.

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<sup>1</sup> A certified copy of the priority EP '201 application (which was filed in the English language) is present in the official record of this application according to the USPTO's PAIR system. Thus, the applicants' claim for priority to the EP '201 application has been perfected.

Withdrawal of the rejection advanced under 35 USC §102(e) is therefore in order.

## 2. Response to 35 USC §103(a) Rejections

The Examiner has raised several rejections against the pending claims under the auspices of 35 USC §103(a).

Specifically, claims 25-32 and 34-36 were rejected under 35 USC §103(a) as allegedly being "obvious" and hence unpatentable over Keller et al 9USP 6143850) in view of Sunder et al '082 (USP 6765082) and Tournilhac et al (USP 6287552), while the Sunder I article (*Macromolecules*, 2000, 33, pp 309-314) was combined with such references to separately reject claims 34-36 under the same statutory provision. The Sunder I article was combined with Keller et al and Tournilhac et al to also reject claims 25-31 and 34-36 under 35 USC §103(a), while another article by Sunder et al ("Sunder II article"), i.e., *Macromolecules*, vol. 33, No. 21, 2000, pp 7682-7692, was combined with such references to separately reject claim 32 under the same statutory provision.

As will become evident from the following discussion, none of the rejections advanced against the pending claims under 35 USC §103(a) is appropriate.

### A. Brief Discussion of Applied Publications

Keller et al. relates to lipophilic polymeric UV absorbers based on benzoic acid derivative chromophores and cosmetic compositions with polymer-bound benzoic acid chromophores for protecting the skin and hair from UV radiation (column 1, lines 3 to 7). The polymers disclosed are only linear polymers (column 1, line 55 to column 2, line 10).

The Sunder et al '082 patent relates to a process for the preparation of highly-branched polyols by polymerizations of glycidol in the presence of a hydrogen-active starter compound with basic catalysis (column 1 lines 10 to 13). The highly-branched

polyols are disclosed as highly functional polymeric intermediates, but no specific application except the generalized use in medicine, biochemistry and synthesis is mentioned (column 3, lines 52 to 62).

Tournilhac et al relates to the use, in cosmetic or dermatological topical compositions, of a dentritic polyester polymer (column 1, lines 7-11).

The Sunder I article reports the controlled synthesis of hyperbranched polyglycerols via the anionic ring-opening multibranching polymerization of glycidol (ROMBP) (page 309, left column, lines 8 - 10 of "Introduction"). Further, the Sunder I article discloses an "...approach that permits to tailor the polarity of the hyperbranched polyglycerol without reducing the functionality and without variation of the basic polyether structure." (page 309, right column, first sentence).

The Sunder II article discloses the synthesis of polyglycerols via ROMBP to obtain hyperbranched polyether polyols with molecular weights between  $M_n$  1000 and 10000 and polydispersities  $M_w/M_n < 1.5$  (page 7682, right column, lines 10 to 15).

## **B. Patentability Over the Applied Publications**

As noted above, the Examiner bases his rejections of "obviousness" under 35 USC §103(a) on several combinations of the above-cited publications. However, it should be noted that none of the applied publications teaches or directs an ordinarily skilled person to the specific combination of the present application, i.e. to covalently link p-aminobenzoic acid derivatives as UV-chromophores to hyperbranched glycidol based polymers.

Instead the applied publications disclose isolated random aspects of the combination of the present application, but no hint is given at all to combine such disclosed isolated features in order to arrive at the subject matter of the presently claimed invention. The arguments provided by the Examiner start from and thus are

based on the knowledge of the present application and therefore are based impermissibly on hindsight. The rejections at issue have therefore apparently been made in the impermissible glare of hindsight.<sup>2</sup>

In particular, Keller et al disclose the preparation of polymers to which UV-absorbers based on benzoic acid derivative chromophores may be covalently attached. However, the specific polymers disclosed in Keller et al are linear polymers. The polymers are prepared by subjecting the monomers to free-radical polymerization under customary conditions (column 5, lines 46 to 49). Hyperbranched polymers are not mentioned or contemplated in Keller et al. Nor does Keller et al suggest using different polymers to those specifically disclosed.

Sunder et al '082 discloses known glycidol-based hyperbranched polymers, and mentions several general uses of the same. However, the use for cosmetic sunscreens is not mentioned in Sunder et al '082 (column 3, lines 52—62).

Tournilhac et al only relates to polyester-based polymers. In distinct contrast, the polymers of the presently claimed are polyethers.

Each of the Sunder I and Sunder II articles simply discloses known polyglycidol-based hyperbranched polymers, but no hint is given in these articles about any use of the polymers. In particular no hint is given to use the disclosed polymers in cosmetic sunscreens. Furthermore, no hint is given to covalently attach the *specific* UV-chromophores as claimed herein to such polymers.

Consequently, none of the applied publications comprises any hint to or suggestion of the subject matter of the presently claimed invention, namely to apply p-

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<sup>2</sup> The Federal Circuit regards hindsight as an insidious and powerful phenomenon and is a tempting, but forbidden zone in the inquiry of addressing the statutory obviousness standard. See, e.g., *Panduit Corp. v. Dennison Mfg. Co.*, 227 USPQ 337 (Fed. Cir. 1985) and *Loctite Corp. v. Ultraseal Ltd.*, 228 USPQ 90, 98 (Fed. Cir. 1985).

aminobenzoic acid derivatives as UV-chromophores covalently linked to hyperbranched polyglycidol-based polymers. The teaching of the applied publications is instead either totally unrelated, e.g. as the different polymers are used for different purposes, or even incompatible, e.g., as distinctly different polymers are disclosed. Thus, the subject matter of the presently claimed invention cannot be considered "obvious" in view of any combination of the disclosures of the applied documents.

Withdrawal of the rejections advanced under 35 USC §103(a) is therefore in order.

### 3. Fee Authorization

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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